

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

5 an annular dome connected to an internal, upstream end of the outer casing;

a radial flow air swirler mounted to an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber;

10 a fuel injector body mounted to an internal surface of the radial flow air swirler, said fuel injector body comprising a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nozzle, and a plurality of radially oriented main circuit fuel nozzles; and

a plurality of circumferentially disposed dome cooling nozzles.

16. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein said fuel injector body incorporates both the pilot circuit and the main circuit fuel injection systems.

17. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein said fuel injector body for the pilot and main circuit fuel injection systems is cylindrical.

18. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein pilot circuit fuel and main circuit fuel injectors are located in the combustion chamber at essentially the same axial and radial locations.

19. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein said pilot circuit fuel nozzle is encircled by a plurality of axial air swirlers.

20. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein said main circuit fuel nozzles discharge fuel positioned at a compound angle into a radial swirler passage.

21. (New) The gas turbine engine fuel injection and combustor system of claim 15, wherein the combined geometry of the pilot circuit and main circuit fuel injection systems provides a combined volume that is less than the volume of the combustion chamber.

22. (New) The gas turbine engine fuel injection and combustor system of claim 15, further comprising a can type combustor.

23. (New) The gas turbine engine fuel injection and combustor system of claim 15, further comprising an annular type combustor.

24. (New) The gas turbine engine fuel injection and combustor system of claim 15, comprising aviation fuel.

25. (New) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

5 an annular dome connected to an internal, upstream end of the outer casing;

a radial flow air swirler mounted to an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber;

10 a fuel injector body mounted to an internal surface of the radial flow air swirler, said fuel injector body comprising a plurality of axially oriented

air swirlers, an axially located pilot circuit fuel nozzle, and a plurality of radially oriented main circuit fuel nozzles;

- 15        wherein the combined geometry of the pilot circuit and main circuit fuel injection systems provides a combined volume that is less than the volume of the combustion chamber.

26.    (New) The gas turbine engine fuel injection and combustor system of claim 25, wherein said fuel injector body incorporates both the pilot circuit and the main circuit fuel injection systems.

27.    (New) The gas turbine engine fuel injection and combustor system of claim 25, wherein said fuel injector body for the pilot and main circuit fuel injection systems is cylindrical.

28.    (New) The gas turbine engine fuel injection and combustor system of claim 25, wherein pilot circuit fuel and main circuit fuel injectors are located in the combustion chamber at essentially the same axial and radial locations.

29.    (New) The gas turbine engine fuel injection and combustor system of claim 25, wherein said pilot circuit fuel nozzle is encircled by a plurality of axial air swirlers.

30.    (New) The gas turbine engine fuel injection and combustor system of claim 25, wherein said main circuit fuel nozzles discharge fuel positioned at a compound angle into a radial swirler passage.

31.    (New) The gas turbine engine fuel injection and combustor system of claim 25, further comprising a can type combustor.

32. (New) The gas turbine engine fuel injection and combustor system of claim 25, further comprising an annular type combustor.

33. (New) The gas turbine engine fuel injection and combustor system of claim 25, further comprising aviation fuel.

34. (New) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

5 an annular dome connected to an internal, upstream end of the outer casing;

a radial flow air swirler mounted to an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber;

10 a fuel injector body mounted to an internal surface of the radial flow air swirler, said fuel injector body comprising a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nozzle, and a plurality of radially oriented main circuit fuel nozzles;

15 wherein said pilot circuit fuel and said main circuit fuel injectors are located in the combustion chamber at essentially the same axial and radial locations.

35. (New) The gas turbine engine fuel injection and combustor system of claim 34, wherein said fuel injector body incorporates both the pilot circuit and the main circuit fuel injection systems.

36. (New) The gas turbine engine fuel injection and combustor system of claim 34, wherein said fuel injector body for the pilot and main circuit fuel injection systems is cylindrical.

37. (New) The gas turbine engine fuel injection and combustor system of claim 34, wherein said pilot circuit fuel nozzle is encircled by a plurality of axial air swirlers.

38. (New) The gas turbine engine fuel injection and combustor system of claim 34, wherein said main circuit fuel nozzles discharge fuel positioned at a compound angle into a radial swirler passage.

a' 39. (New) The gas turbine engine fuel injection and combustor system of claim 34, wherein the combined geometry of the pilot circuit and main circuit fuel injection systems provides a combined volume that is less than the volume of the combustion chamber.

40. (New) The gas turbine engine fuel injection and combustor system of claim 34, further comprising a can type combustor.

41. (New) The gas turbine engine fuel injection and combustor system of claim 34, further comprising an annular type combustor.

42. (New) The gas turbine engine fuel injection and combustor system of claim 34, comprising aviation fuel.

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REMARKS

No Claims have been resubmitted. No Claims have been amended. Claims 1-14 have been canceled. New Claims 15-42 have been added.

The Examiner requested an affirmation of a provisional election with traverse between Group I (Claims 1-11) and Group II (Claims 12-14). The